

IBM Consulting



G-Cloud 15
IBM – Migrate and Modernise to Cloud

Service Definition Document

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IBM Migrate and Modernise to Cloud

Service Overview

Features

- Proven approach to Cloud migration/modernisation using IBM Garage Method
- Standard patterns derived from “The 6 Rs” for application migration
- AI-powered tooling providing insight to Cloud Portfolio Migration
- DevSecOps and shared services provide consistent, efficient and portable applications
- Implementation of appropriate Kubernetes Container orchestration management
- Roadmap for phased modernisation while minimising impact on operations
- Cloud certified experts and methods accelerate delivery and reduce risk
- Proven experience of application and data migration within complex architectures
- Proven experience of Data Centre rationalisation, consolidation and exit
- Leveraging the best of GenAI, ITIL, Agile, LEAN and DevOps disciplines
- Delivery includes IBM and third party GenAI capabilities such as IBM Watsonx, Amazon Bedrock, Microsoft Copilot, a range of assistants and developer tools including IBM Sidekick/Consulting Assistant, ChatGPT, Amazon Q and a range of LLMs.

Benefits

- Reduced technical debt and operational risk through legacy application migration
- Co-created roadmap builds commitment, accelerating transformation and benefits realisation
- Services customised and tuned for all Public Cloud Platforms
- Reduced TCO through automation and optimal use of IT resources
- DevSecOps pipelines achieve consistent compliance with government security standards
- Enhanced user experience through application stability, scalability, and consistent integration
- Cost effective, flexible and scalable applications delivered on the cloud
- Increased Go-to-Market agility with “on-demand” environments and faster cycle times
- Drive culture and skill transformation via IBM Garage ‘co-creation’ process
- Migrate large-scale legacy applications at pace leveraging global migration factories.

Key Differentiators

- Unparalleled experience with resiliency, security and compliance with hundreds of Clients engaged on a Cloud journey with IBM
- A strong workforce of globally distributed professionals trained on cloud and supported by the strongest suite of market leading tools
- Deepest experience with the challenges of the Enterprise, with solutions to simplify the complexity
- IBM Watsonx includes three core components and a set of AI assistants to help sale and accelerate the impact of AI with trusted data across your business.

IBM Migrate and Modernise to Cloud

Addressing Business Needs

We work in partnership with you to address your business needs, leveraging our deep industry and technical expertise, tools, and approach to deliver Digital ready solutions for a range of business needs.



IBM's Cloud Migration and Modernisation accelerates the creation of a future-ready business, optimising cost and reducing technical debt.

IBM provides the skills, methods and tooling to modernise legacy and mainframe applications, aligns IT with business requirements, reduces operating costs to free up capital for innovation and enhances the overall application security posture.

How do we Migrate to Cloud from a large complex legacy estate operating highly critical services?

Our clients often struggle with a lack of deep applications knowledge, capabilities and tools which impacts their ability to successfully implement a safe migration and modernisation plan.

IBM can help you to create your journey from legacy to cloud with a range of IBM's AI and market leading application modernisation tools such as ADDI, CAST, DevOps Commander, Red Hat Application Migration Toolkit, and FastPath to Containers. These tools are used to evaluate the application codebase and validate our client's IT/business to co-create the most suitable Migration and Modernisation strategy.

Cloud security enablement based on industry leading practices, regulations, and compliances.

Speed of modernisation is not keeping up with business objectives?

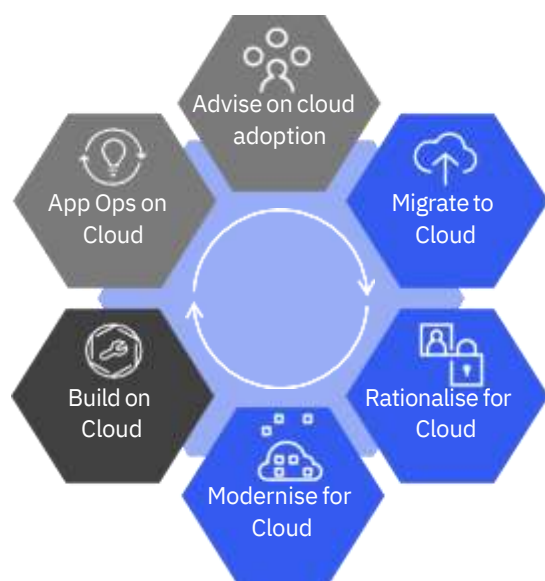
Our clients face challenges with scalability as the complexity of their application landscape prevents them from integrating old and new.

IBM provides needed skills and demonstrates new ways of working by co-creating, co-executing and co-operating with client teams. Our modernisation approach can efficiently transform applications and data to enable customer-centric innovation and deliver exceptional client experiences.

IBM Migrate and Modernise to Cloud

Service Definition

We provide a full migration and modernisation service that drives value from your journey to the cloud.



IBM Cloud Modernisation

In-depth analysis of applications at the code level reveals application dependences and level of remediation needed. The results of this analysis along with any new business requirements is used by the team to develop a detailed design of the modernised application. This is followed by required code conversion, remediation, and new development.

Along with Modernisation Discovery, IBM Design Thinking workshops with IT and the Business are used to identify opportunities for enhancement. Together this information is used to create detailed blueprints for the modernised application and detailed execution plans.

IBM Cloud Migration

Migrating applications to modern cloud platforms consists of:

- Enabling them to run on current and supported operating platforms, middleware, and databases
- Redeploying them to the target cloud using a deployment pattern providing targeted performance



Each application is assessed in detail to determine changes that need to be made to prepare them for the new platform. An efficient Factory approach is used to accelerate the migration execution using the IBM Garage Method for Cloud and the associated automation toolsets.

IBM Cloud Rationalisation

Rationalise for Cloud is the simplification of the application estate including data migration, archive and decommission at end of life, with an approach based on repeatable and scalable methods, tools and accelerators.

- Data migration – Moving the required data from source systems and securing this in the archive solution. This includes all ETL actions in addition to making the data and associated schema available for search and reporting capabilities.
- Archive and decommission at end of life – Defining the right archive strategy and solution in line with policies on Information Lifecycle Management to deliver cost benefits through application decommission and ending both licenses and contracts.

IBM Migrate and Modernise to Cloud

IBM Approach

We bring the benefit of having worked with the world's largest organisations, transforming complex, critical services. Our approach is based on robust methods, processes and personalised engagement.



We focus on your business needs and developing trusted long-term relationships, underpinned by industry-leading experience and capabilities. We want you to get the best out of every engagement and to deliver outcomes that matter for your organisation.

Our enhanced experience of multiple public cloud and mainframe migrations combined with deep expertise of RedHat and OpenShift enable us to have a true cloud agnostic approach for all your cloud transformation needs now and in the future.

IBM Migration Factory modernises workloads safely and securely, with automation to accelerate and reduce risk.

- Continuous discovery – Monitors for changes and schedule impacts and prioritisation
- Multicloud by design – Integrated cloud provider toolkits and services
- Automation and orchestration – Accelerate and reduces risk, integrates DevSecOps
- Migration squads – Teams scale up to drive end to end migrations following a consistent method



IBM Migrate and Modernise to Cloud

Why IBM?

Experience

Major transformations to Multi-Cloud for Fortune 500 Companies to AWS, Azure, BlueMix, Google and Private Cloud built on Red Hat OpenShift

Complexity

Significant migrations performed with thousands of applications.

Expertise

Cloud consultants and experts globally with experience of IBM Cloud, Red hat, Open Shift, AWS, Azure, Google and more.

The principles of how we think and act in our delivery to clients include:

- Building long-term client relationships based on innovation, trust and service excellence
- Using Design Thinking and agile approaches to help frame and execute our client's change programs
- Infusing cognition and emerging technologies into our clients' enterprises and core processes
- Exploiting hybrid multi-cloud-based solutions to underpin evolving client processes
- Developing and deploying world-class talent
- Using consistent, modern methods and tools – constantly reviewing and refining to accelerate the value we deliver
- The ability to thrive and succeed in engagements driven by globally dispersed, multi-disciplined teams using our suite of collaboration tools is at our core.

IBM Migrate and Modernise to Cloud Innovation

Garage Method for Cloud

The IBM Garage Method for Cloud™ is a collection of practices and workflows that have been curated to help organisations rapidly design, build, deploy, and scale innovative solutions.

The Method uses Enterprise Design Thinking, Lean Startup, and agile DevOps concepts to enable continuous design, delivery, and validation of new functionality.

Containerisation

Containerisation enables the agility, scalability, and portability of workloads, resulting in speed and efficiency in the cloud transformation.

This innovation has delivered the following quantifiable benefits during a cloud migration for a leading UK Bank:

- Reducing remediation effort of application layer components – Reducing end-to-end migration timelines by up to 35%.
- Rapid application infrastructure scalability
 - Adding containers with minimal effort by replicating the application image across new VMs.
- Allowing portability across environments and cloud providers, minimal future remediation for infrastructure/framework currency – Speed and lower costs to upgrade infrastructure or change providers.

Garage Method for Cloud Toolkit

The IBM Garage Method for Cloud toolkit is a suite of integrated tools and assets with a scalable, flexible architecture supported by an analytics engine and automation that helps our clients accelerate their transformation journey to a multi-cloud environment.

This toolkit supports our client's cloud transformation journey by the acceleration of cloud adoption with automation for greater efficiency and deeper analytical insights for improved decision-making ability, delivering benefits such as:

- Up to 40% reduction in time and effort to process new sources of information.
- Up to 25% reduction in errors from manual activities related to migration.
- Up to 25% reduction in time and effort required for migration activities.

Migration Factories

Our Migration Factories provide a comprehensive design and delivery engine to drive cloud adoption that includes people, process and tools.

These services include:

- A core set of services that help clients transform their applications and infrastructure to cloud.
- The more “common” services such as solution design, architecture, design- thinking etc. are leveraged as appropriate for client delivery.
- Factory operations services are required to support client delivery. Talent & skill management, Capacity management, financial operations are examples.

IBM Migrate and Modernise to Cloud

Value from Migration and Modernisation

Cloud migration can modernise your workflows, improve performance and reduce work for your system administrators. If you are undecided about moving your applications to the cloud, consider these benefits.

Agility

Offer IT resources on demand, providing users and business groups with what they need rapidly, without having to acquire and deploy new hardware.

Scalability

Why buy equipment to try to anticipate usage spikes? Cloud providers bill you only for the resources you use, so you can accommodate unexpected surges or seasonal usage patterns.

Cost control

Understand how your cloud costs are allocated in switching from a capital expense (CAPEX) to operating expense (OPEX) model for your infrastructure. Greater understanding driven by this “utility” pay structure will increase control and improve the management of your infrastructure costs.

Ease of maintenance

Pushing updates to individual computers, patching servers and provisioning new hardware are expensive and time-consuming tasks. Free your IT administrators to work on bigger projects and leave the infrastructure maintenance to your cloud provider.

Security

Physical data centre security together with state-of-the-art software security measures help safeguard your data. You gain the flexibility to manage security levels and select among a variety of security options.



IBM Migrate and Modernise to Cloud

Experience Counts

Large UK Bank, Retail

Commercial & Insurance. 30M customers & 75K employees.

Seeking to migrate to a flexible, scalable and resilient solution that brings cost and agility benefits, while tackling technical debt in legacy systems.

Results:

- 95% of application migrated to Hybrid Cloud – 65% Off Premise Private/ Public), 30% On premises private cloud & 5% retained in traditional Data centre
- 1300 Enterprise applications (24K hosts) underway to migrate & modernise to cloud in 3 years
- Environments available up to 80% faster & speed to market of
- application development and test projects up to 60% faster.

Top Biopharmaceutical Company

Global Pharmaceutical corporation 3-year program to transform IT and Business from a country-based model to align with a new business model spanning 16 Markets.

Results:

- Positive ROI from a \$64M business case
- 500+ Applications decommissioned from the original portfolio. Remaining application maintenance and development transitioned to new managed service
- 1500+ Application architecture maps created that enabled the integration of a new acquisition / portfolio of over further 1500 applications rationalised.

UK Insurance, Savings and Investments Company

This client was experiencing a rapid increase in platforms from business silos and acquisitions, with high legacy maintenance and change costs.

Results:

- 500+ Applications decommissioned from the 50% of applications (500) reduced over 3 years
- Annual application and infrastructure costs reduced from £440m pre- transformation to £250m in year 3
- Sustainable run cost savings delivered from day one.

IBM Migrate and Modernise to Cloud

About IBM

Supporting Government

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

Government Services Supported by IBM:

	Defence and Intelligence
	Public Safety and Policing
	Healthcare
	Life Sciences
	Tax & Revenue Management
	National Infrastructure
	Social Care
	Education
	Work and Pensions

The problems we solve for clients are complex and cannot be satisfied with technology alone. They require a partner that can also offer deep industry expertise and a relationship of trust.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands. Every day, we support and manage complex delivery for government clients where the impact of delivery has wide-reaching impact on citizens and national services.

We bring access to the industry experience, insight and technology capability to deliver and operate secure, scalable, optimised and available services for government.

We support you by bringing:

- Industry expertise – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- Trust and security capabilities – Protecting valuable data and insights and deploying new innovations responsibly
- Innovative technology – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- Experienced Services professionals to support strategy, innovation and deliver transformation and change to processes, applications, and cloud infrastructure
- Global alliances – valuable partnerships with the world's leading vendors

This is IBM in the UK

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



R&D

In the UK alone, IBM invests **£170 million in R&D** each year



Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



Environment

IBM's focus on sustainability began in 1971 with our first environmental policy



Artificial Intelligence

IBM develops **watsonx based generative AI solution** for the Austrian federal armed forces to provide **fact-based evaluation and classification** for the ability to remain capable of acting in the light of risk scenarios.



Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



Royal recognition

29 UK IBMers received honours from the **Queen** for contributions to tech and society



Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



Graduates

IBM is committed to developing future talent – we are **Target Jobs' Graduate Employer of the Year 2019**



Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**

